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EXAMINER

KUHAR, ANTHONY J

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 03/20/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | |
|-----------------------------|-------------------|
| Application No. | HUTTERMANN ET AL. |
| 09/647,108 | |
| Examiner Anthony J Kuhar | Art Unit 1754 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 January 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 2-11 and 13-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 2-11 and 13-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

Specification

The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

Claim Objections

Claim 7 is objected to because of the following informalities: “triallylamin” is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, an improper Markush grouping is recited. Examiner recommends changing “a group consisting of” to “the group consisting of”. Also, the “or” before triallylamin should be replaced with a comma.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-11 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vyshkina '965 in view of EP 0072214 and further in view of EP 0072213.

Vyshkina '965 teaches a process for removing heavy metals, particularly chromium, from soils with an anionic flocculant. Column 5, lines 13-15 show that at a chromium concentration of up to 100 ppm, a single wash with a solution of anionic synthetic organic flocculant is sufficient to decontaminate the soil. Example 1 discloses the use of high molecular weight

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polyacrylamide as the anionic flocculant. EP 0072213 teaches polyacrylamide as a polyacrylate (see page 6, line 5). Vyshkina '965 does not disclose that the polyacrylamide is crosslinked, nor the process for making the polyacrylamide used in the invention.

However, EP 0072214 teaches a process for making crosslinked polyacrylamide starting on page 2, line 23. A copolymer of acrylamide and acrylic acid salt is crosslinked. It is disclosed that substituted acrylic acid salts such as methacrylates can also be used (see page 2, lines 32-33). Crosslinking agents are similar to those disclosed in the instant claims (see page 4, lines 9-10). Heating during polymerization is taught from 90 to 150 °C (see page 4, lines 28-29). Page 3, lines 9-11 disclose the product of invention is capable of absorbing often 25 and possibly more than 100 times their own weight in water. Ranges of 0.01% to 2% crosslinking agent by total weight of the monomers are disclosed on page 4, lines 1-5. EP 0072214 also teaches partly neutralizing a monomer by an alkali before polymerization, e.g. at 90% (see page 5, lines 17-20). On page 8, lines 1-7, the polyacrylamide may be added as low as 0.5%-1% by weight of soil to see good results, whereas a few percent are generally required, but not more than 4%.

At the time the invention was made, one of ordinary skill in the art would have recognized that polyacrylamide as taught by Vyshkina '965 is useful in decontaminating soils with heavy metals and further prepare their own polyacrylamide using the methods taught by EP 0072214 because Vyshkina teaches polyacrylamide removes heavy metals from soils, and EP 0072214 teaches a superior polyacrylamide in terms of water retention and desirable level of water soluble materials (see page 16, lines 13-25). Thus one of ordinary skill in the art would have been motivated to use the polyacrylamide of EP 0072214 for the purposes taught by Vyshkina because the polyacrylamide of EP 0072214 has the superior properties mentioned

above; thus one of ordinary skill in the art would conclude that it would also have a superior ability to decontaminate soils.

Furthermore, it is not necessary in order to establish a prima facie case of obviousness that the prior art show both a similar structure between a claimed compound and that of the prior art and also that the claimed compound will have the same utility as that discovered by the applicant. Burden falls on the applicant to show that the claimed composition possesses unexpectedly improved properties that were lacking in the prior art. See *In re Dillon* 16 USPQ 2d 1897, page 1901.

Response to Arguments

Applicant's arguments filed on 1/29/03 in paper no. 10 have been fully considered but they are not persuasive.

Applicant argues that Vyshkina comprises washing the soil with a solution of the organic flocculant which is polyacrylamide among other process steps. Vyshkina's process of washing the soil with a solution of the polyacrylamide at a certain pH meets applicant's claim limitation "applying to the contaminated soil ... a compound selected from the group consisting of..."

Applicant argues that there is no motivation for a skilled artisan to combine the Vyshnika and EP 0072213 and EP 0072214 references. EP 0072213 is relied on to show that the polyacrylamide of Vyshnika is a polyacrylate. While EP 0072214 is directed to a composition for protecting the plants, the examiner relies on these references to show how the polyacrylamide of Vyshnika can be synthesized in the context of soil treatment. Thus, one of ordinary skill in the art in seeing that a polyacrylate such as polyacrylamide can be used to reduce the heavy metal availability to plants and seeing that the Vyshnika references provides no process for

making the polyacrylamide, would be directed to other soil treatment art to find the methods of producing such a polymer since Vyshnika did not disclose this information. The EP references provide the method upon which the polyacrylamide can be made. Since the utility of the compound is a function of the chemical nature of the compound itself, it is reasonable to expect that the compound would be able to perform the utility disclosed in both Vyshkina and the EP reference. It is not necessary in order to establish a *prima facie* case of obviousness that the prior art show both a similar structure between a claimed compound and that of the prior art and also that the claimed compound will have the same utility as that discovered by the applicant. Burden falls on the applicant to show that the claimed composition possesses unexpectedly improved properties that were lacking in the prior art. See *In re Dillon* 16 USPQ 2d 1897, page 1901.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J Kuhar whose telephone number is 703-305-7095. The examiner can normally be reached on 8:45 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stan Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



AK

March 13, 2003



STEVEN BOS
PRIMARY EXAMINER
GROUP 1100